front wheel is the steering wheel which pivots on a shaft, usually connected to the handlebars. Thus, any motor adapted to drive the front wheel of a scooter must likewise pivot along with the wheel and the steering shaft. Thus, it would not be obvious to merely lift the Patmont motor from the rear wheel placement and attach it to the front wheel. The Patmont structure uses a cantilevered bracket supported on a spring for attaching the motor to the trailing rear wheel which does not turn. Such structure would be entirely inappropriate for a front-wheel drive scooter.

The Selwyn scooter does show a front-wheel attached motor. However, the Selwyn scooter, unlike the claimed invention, does not have its motor assembly detachably mounted to the steering shaft. Rather, the steering shaft and motor are integral to the scooter itself. Further, the claims require a biasing mechanism which urges the motor output shaft into engagement with the front wheel. There is no such structure in Selwyn which uses a gear train. The motor must be locked into the upright position so that the gears can mesh and thus drive the front wheel.

Applicant acknowledges the provisional allowance of claims 6, 14 and 26 and these claims have been rewritten in independent form from their former base claims.

Respectfully submitted,

William O. Geny

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| Applicant: | Shane CHEN | Group Art Unit: | 3618 3671 |
| Serial Nº | 09/941,390 | Examiner: | F. VANAMAN |
| Filed: | August 28, 2001 | | |
| Title: | DETACHABLE MOTOR FOR SCOOTER | | |



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**Version with markings to show changes made.**

**Deletions are bracketed; additions are underlined.**

**In the claims:**

1. A scooter assembly, comprising:

   (a) a scooter comprising a running board supported by a front wheel and a rear wheel, said front wheel being connected to a handle bar by means of a steering shaft;

   (b) a motor assembly detachably mounted to said [scooter] steering shift and comprising a case and a motor, said case housing a battery and said motor being electrically connected to said battery and said motor having [a] an output shaft for engagement with [one of said wheels; and] said front wheel;

   (c) a biasing mechanism operably associated with said motor and at least one of said scooter and said case to urge said [motor] output shaft into engagement with [one of] said front wheel[s].

6. [The scooter assembly of claim 1] A scooter assembly, comprising:

   (a) a scooter comprising a running board supported by a front wheel and a rear wheel, said front wheel being connected to a handle bar by means of a steering shaft;

   (b) a motor assembly detachably mounted to said scooter comprising a case and a motor, said case housing a battery and said motor being electrically connected to said battery and said motor having a shaft for engagement with one of said wheels; and

   (c) a biasing mechanism operably associated with said motor and at least

one of said scooter and said case to urge said motor shaft into engagement with one of said wheels; and

(d) wherein said scooter further comprises a pin and said case has a bearing portion for receiving said pin, so that said case is capable of pivoting with respect to said scooter.

9. The scooter assembly of claim 1 further comprising a control mechanism attached to said handle bar to control the operation of said scooter.

10. The scooter assembly of claim 1 further comprising a control circuit and a wheel sensor, said control circuit controlling the operation of said motor in response to a signal received from said wheel sensor.

11. The scooter assembly of claim 1 further comprising a control circuit and a current sensor capable of monitoring current flow to said motor, said control circuit controlling the operation of said motor in response to a signal received from said current sensor.

12. A method for operating a motorized scooter assembly, comprising:

(a) providing a scooter comprising a running board supported by a front wheel and a rear wheel, said front wheel being connected to a handle bar by means of a steering shaft;

(b) providing a motor assembly comprising a case and a motor, said case housing a battery and said motor being electrically connected to said battery and said motor having a shaft for engagement with [one of] said front wheel[s];

(c) detachably mounting said motor assembly to said [scooter] steering shaft; and

(d) biasing said motor with respect to at least one of said scooter and said case to urge said motor shaft into engagement with said [one of said] front wheel[s].

14. [The method of claim 12] A method for operating a motorized scooter assembly,

comprising:

(a) providing a scooter comprising a running board supported by a front wheel and a rear wheel, said front wheel being connected to a handle bar by means of a steering shaft;

(b) providing a motor assembly comprising a case and a motor, said case housing a battery and said motor being electrically connected to said battery and said motor having a shaft for engagement with one of said wheels;

(c) detachably mounting said motor assembly to said scooter; and

(d) biasing said motor with respect to at least one of said scooter and said case to urge said motor shaft into engagement with said one of said wheels; and

(e) wherein said scooter further comprises a pin and said case further comprises a bearing portion, and said step of detachably mounting said motor assembly to said scooter comprises receiving said pin within said bearing portion.

17. The method of claim 12 further comprising the step of controlling operation of said motor in response to turning of [one of] said front wheel[s].

19. The method of claim 12 further comprising the step of disengaging said motor from said [one of said] front wheel[s] and manually operating said scooter while said motor assembly is attached to said scooter.

21. A scooter assembly, comprising:

(a) a scooter comprising a running board supported by a front wheel and a rear wheel, said front wheel being connected to a handle bar by means of a steering shaft;

(b) a case mounted to said scooter and a motor, said case housing a battery and said motor being electrically connected to said battery and said motor having an output shaft for engagement with said front wheel;

(c) said motor being detachably mounted to at least one of said steering shaft and an axle of said front wheel of said scooter to engage said front wheel;

(d) a biasing mechanism operably associated with said motor and at least one of said scooter and said case to urge said [motor] output shaft into engagement with said front wheel, and said [motor] output shaft being selectively engageable with said front wheel.

26. [The scooter assembly of claim 21] A scooter assembly, comprising:

(a) a scooter comprising a running board supported by a front wheel and a rear wheel, said front wheel being connected to a handle bar by means of a steering shaft;

(b) a case mounted to said scooter and a motor, said case housing a battery and said motor being electrically connected to said battery and said motor having a shaft for engagement with said front wheel;

(c) said motor being mounted to at least one of said steering shaft and an axle of said front wheel of said scooter to engage said front wheel;

(d) a biasing mechanism operably associated with said motor shaft at least one of said scooter and said case to urge said motor shaft into engagement with said front wheel, and said motor being selectively engageable with said front wheel; and

(e) wherein said scooter further comprises a pin and said case has a bearing portion for receiving said pin, so that said case is capable of pivoting with respect to said scooter.

**CERTIFICATE OF MAILING**

I hereby certify that this Amendment is being deposited with the United States Postal Service as first class mail on January 29, 2003 in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231.

Dated: January 29, 2003

William O. Geny